



Homeland Security

SEP 24 2003

The Honorable Edward J. Markey
Ranking Member
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515

Dear Congressman Markey:

Thank you for your letter of September 12, 2003, to Secretary Tom Ridge. In your correspondence, you expressed concerns regarding a media report which claimed to have identified disturbing gaps in the ability of the Department of Homeland Security (DHS) to detect and deter the entrance of potentially dangerous cargo into the United States ("Border Breach? Customs Fails to Detect Depleted Uranium - Again," ABCNews.com, September 10, 2003). Please allow me to address your concerns.

The DHS shares the concerns raised in your letter and continues to search for new ways and methods to protect our Nation's borders. We are providing answers to the questions raised in your letter.

1. In your speech of September 2, 2003 at the American Enterprise Institute, you emphasized the need to increase the scrutiny on cargo at its origination point, before it reaches our shores. During your speech, you noted that our security strategy must "extend our zone of security outward, so that our borders become our last line of defense, not our first line of defense. And that's why we build security measures that begin thousands of miles away, long before a container is first loaded on a ship." You pointed out in your speech that the United States is safer today because President Bush has spearheaded efforts to gain the cooperation of governments in countries such as Indonesia, which recently was the site of a terrorist bombing in Jakarta reportedly carried out by Jemaah Islamiah, an affiliate of Al Qaeda.

(A) Please describe the specific security measures that the Department has in place to screen or inspect cargo that is loaded in Jakarta and other foreign ports for transporting to the United States. How did these measures operate in the case of the trunk containing the depleted uranium that was shipped by ABC News? What security improvement has the Department made in Jakarta subsequent to the depleted uranium shipment, which exposed loopholes in the cargo screening and inspection process in Jakarta, a center of Southeast Asian terrorism?

Response: With the implementation, on December 2, 2002, of the rule requiring advance presentation of vessel cargo manifests to Customs — the 24-hour rule — all cargo information must be submitted to Customs and Border Protection (CBP) by the carrier at least 24 hours before cargo destined for the United States is laden on board a vessel. The manifest and bills of lading are processed through the Automated Targeting System and assigned a score. A CBP Inspector reviews all of the bills of lading that meet or exceed a certain threshold.

In the case of the trunk containing *harmless* depleted uranium shipped by ABC News, the container was assigned a score sufficient to require inspection. The inspection was accomplished at the Port of Long Beach, California.

Jakarta is not currently one of the Container Security Initiative (CSI) ports. However, as stated above, cargo is screened at the earliest possible time, which in this case was 24 hours prior to lading in Malaysia.

- (B) Is Jakarta included on the first list of sites that currently participate in Phase I of the Department's Container Security Initiative (CSI), which is designed to improve U.S. security by tightening the security at foreign ports? If not, why not? Is Jakarta included on the list of sites that will participate in Phase II of the CSI? If not, why not?

Response: The Declarations of Principles that CBP signs with host government customs authorities allows CBP to place multidisciplinary teams of Inspectors, Intelligence Analysts, and Special Agents in the host government's ports. The CBP personnel work with their foreign counterparts to target and, if necessary, inspect containers that are suspected of containing Weapons of Mass Destruction or other implements of terror. The CSI works with foreign governments to enhance the security of the international supply chain. Port security is the purview of the foreign government and is being addressed by the International Maritime Organization.

Phase I of CSI is designed to address the greatest number of containers and is being implemented in the 20 ports that ship about 70 percent of all seaborne containers to the United States. Jakarta is not one of those 20 ports but is considered one of the ports for possible inclusion in subsequent phases of CSI.

- (C) According to a representative of Maersk Logistics, the company that ABC News hired to ship the trunk containing depleted uranium, Maersk relies on

government screening to validate the contents of commercial cargo, because Maersk procedures do not require its agents to inspect containers loaded outside commercial piers. Was the trunk containing depleted uranium shipped by ABC News screened by government authorities in Jakarta? If yes, please provide the date and time and method of the screening which occurred and identify the government authority that conducted the screening. If the trunk was not screened by any government authority, why not?

Response: The container in question was screened by the CBP National Targeting Center at the time that advance manifest information was received under the 24-Hour Rule. The container was placed aboard a U.S.-bound vessel in Malaysia, not Jakarta. Therefore, the first opportunity for screening occurred while the container was in Malaysia.

The CBP has signed a Declaration of Principles with Malaysia and has recently conducted a port assessment in preparation for deploying a multidisciplinary CSI team. In the future, CBP will have the ability to inspect high-risk containers transiting Malaysia at a Malaysian port. In this case, however, the first opportunity to inspect the container was in the Port of Long Beach.

2. Media reports indicate that, upon arrival at the Port of Los Angeles on August 23, 2003, the shipment from Jakarta was screened by Department inspectors, but the inspectors did not detect anything dangerous or suspicious inside the trunk using radiation pagers and X-ray scanners and therefore did not open the crate. As you know, while depleted uranium is a harmless substance, its chemical signature is similar to highly enriched uranium (HEU), which can be used in the development of a nuclear explosive device.

(A) Did the Department inspectors at the Port of Los Angeles detect the presence of depleted uranium in the crate shipped from Jakarta? If yes, please provide the date and time that this detection occurred? If inspectors did not detect the presence of depleted uranium, why not?

Response: The CBP inspectors at the Port of Los Angeles did not detect the presence of depleted uranium in the crate shipped from Malaysia. However, as part of CBP's layered enforcement, the following actions occurred. The shipment was selected for examination as a result of CBP's automated targeting systems. The container was subsequently examined using a large-scale gamma-ray imaging system that produces an X-ray type image. In addition, the personal radiation detectors used by the officers preparing the container for X-ray examination did not alert to the presence of any radiation

being emitted from the container. Since the X-ray type image and personal radiation detectors showed no evidence that the shipment was a danger to the American public, the shipment was released.

- (B) If Department inspectors at the Port of Los Angeles detected the presence of depleted uranium, how did they determine that it was not actually HEU without opening the crate and testing the substance?

Response: Not Applicable.

3. The Department has asserted that the depleted uranium was allowed to enter the U.S. because, in the words of Undersecretary Hutchinson as quoted in press reports, "it was not a danger to America" and that had there been an attempt to import HEU into the country this would have been detected. The Natural Resource Defense Council (NRDC), which provided the depleted uranium to ABC News, has suggested on its website (<http://www.nrdc.org/nuclear/furanium.asp>) that such assertions are factually incorrect, and that a screening system that is unable to detect a shipment containing depleted uranium is unlikely to be capable of detecting HEU.

- (A) Do you agree or disagree?

Response: Disagree

- (B) If you disagree, please explain what about the following statement on the NRDC website is inaccurate and why:

"Had the 15-pound uranium cylinders been weapons-grade highly enriched uranium instead of depleted uranium (which is not suitable for nuclear weapons), the dose rate at the surface of the highly enriched uranium would have been more than 100 times higher. However, nearly all of this increase would be due to alpha radiation, which can be shielded with a sheet of paper. Meanwhile, the beta-ray dose rate would be about the same or lower and the gamma-ray dose would be ten or more times higher. At the surface of the shielded container the dose rate would be about one to ten times higher. The dose rate of the highly enriched uranium cylinder could be easily reduced to that of the shielded depleted uranium (i.e., 0.5 mrad/hr) by adding an additional 1/8 inch of lead (one-third of a centimeter) around the cylinder. This would add only about 6.6 pounds (3 kilograms) to the mass of the lead shielding."

"In other words, it would be as easy to smuggle highly enriched uranium through U.S. Customs as NRDC's depleted uranium. Customs personnel used X-ray machines and simple radiation detector pagers to inspect the container

holding NRDC's depleted uranium. Neither device was able to detect the depleted uranium, nor would they have been able to detect highly enriched uranium with slightly more shielding."

Response: The statement on the NRDC website is not accurate because it presumes that detection and interdiction of nuclear materials are based on surface dose rates rather than characteristic gamma emissions and contaminant signatures. The NRDC website does not acknowledge important differences between the radiation signatures that distinguish depleted and highly enriched uranium, differences in physical half-life, and differences in their decay products and associated contaminants.

The central issue of Question 3 is whether it would be possible for CBP to detect highly enriched uranium in the same mass and configuration as the undetected depleted uranium source that was smuggled by ABC News into the United States at Long Beach, California, in August, 2003. The answer is yes, because highly enriched uranium is about 50 percent more detectable than depleted uranium. The ABC shipment contained depleted uranium. It is likely that the radiation portal monitors could locate and identify highly enriched uranium in cargo.

Radiation spectrometric detectors can distinguish between depleted uranium and highly enriched uranium. Depleted and enriched forms of uranium are similar chemically, but their radiological signatures are quite different because they consist of different mixtures of uranium isotopes and other non-uranium contaminants. The ability to detect depleted uranium or highly enriched uranium depends on a relative amount of gamma radiation and its energies that reach the detector. Highly enriched uranium (uranium-235) emits gamma rays, spontaneous neutrons, and other characteristic gamma rays from the ingrowth of decay products. Depleted uranium (uranium-238) emits little gamma radiation and has a physical half-life that is six times longer than uranium-235, but its first daughter (protactinium-234m) emits readily identifiable 1.0 MeV gamma rays. All factors considered, uranium-235 is more easily detected than uranium-238—even though highly enriched uranium is easier to shield from detection.

CBP applies a layered approach to detection and does not focus on any single instrument or technique to detect special nuclear materials. Shielding reduces the signal strength from any radiation source, and uranium is partly self-shielding. Shielding in cargo can be detected using X-ray or gamma-ray imaging as employed by the Vehicle and Cargo Inspection Systems (VACIS). With increased shielding, the probability increases that the shielding will be detected during a VACIS examination of cargo.

In summary, it would be more difficult to smuggle highly enriched uranium through monitored ports of entry, depending on amount of shielding, than depleted uranium. With the proposed addition of more sensitive radiation portal monitors, it is very likely that inspectors would detect 15 pounds of highly enriched uranium hidden in a furniture trunk or other container.

- (C) If you disagree with NRDC, please explain what actions are being undertaken to improve U.S. screening and detection technologies to allow us to detect objects such as the depleted uranium imported by ABC, and, more importantly, HEU shipments that are shielded in the manner described in the previous question.

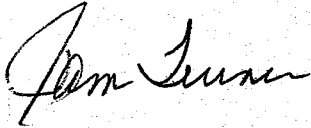
Response: With the proposed addition of more sensitive radiation portal monitors, it is very likely that inspectors would detect 15 pounds of highly enriched uranium hidden in a furniture trunk or other container.

4. Given the difficulties of fully securing our borders from imports of HEU or other nuclear materials that could be used by terrorists to attack targets in the United States, has the Department made any recommendations to the Department of Defense or State with respect to acceleration and expansion of efforts to eliminate stockpiles of HEU in the former Soviet Union, including: a) blending down of HEU in Russia, Ukraine, Uzbekistan; b) conversion of all domestic and foreign research and test reactors to operation using Low Enriched Uranium (LEU); c) elimination of HEU from dismantled U.S. and former Soviet nuclear weapons programs; and d) cancellation of DOE advanced fuel cycle research programs that involve any transfer of information about nuclear reprocessing, plutonium metallurgy or similar technologies to any non-weapons states? If so, what have you recommended? If not, why isn't the Department taking action to try to better cut off these materials from terrorists at the source, given the Department's policy that our borders should be our last line of defense, not our first line of defense against terrorists?

Response: The Office of International Affairs (INA) participates in the Department of State, Bureau of Nonproliferation, Nonproliferation and Disarmament Fund (NDF) Review Panel meetings as a nonvoting member of the Interagency Group. In this role, the office attends NDF Review Panel Meetings and reviews proposals associated with topics related to the elimination of HEU stockpiles in the former Soviet Union. INA, within the Bureau of Customs and Border Protection, does not make recommendations to the Departments of Defense or State with respect to acceleration and expansion of efforts to eliminate stockpiles of Highly Enriched Uranium (HEU) in the former Soviet Union or participate in the specific activities outlined in your letter.

I appreciate your interest in the Department of Homeland Security, and we look forward to working with you on future homeland security issues. If we may be of further assistance, please contact the Office of Legislative Affairs at (202) 205-4412.

Sincerely,

A handwritten signature in cursive script, appearing to read "Pam Turner".

Pamela J. Turner
Assistant Secretary for Legislative Affairs